DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 99.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-020546
Date Inspected: 10-Feb-2011

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC)

OSM Arrival Time: 700
OSM Departure Time: 1900
Location: Shanghai, China

CWI Name: Shao Jian Yuan and Li Yan Hua

Inspected CWI report:	☐ Yes	☐ No	☑ N/A	**CWI Present:**	☑ Yes	☐ No	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☐ Yes	☑ No	☐ N/A
				Approved WPS:	☑ Yes	☐ No	☐ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: OBG Trial Assembly

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) at Trial Assembly and at Bay # 14

OBG Trial Assembly: Segment 12AW to Segment 12BW (Skin Flatness)- After Adjustment

This QA Inspector performed Dimensional Inspection, to check the skin flatness between Segment 12AW to Segment 12BW between Panel Points (PP) 112 and PP 113 at the following locations after adjustment:

The skin flatness was measured on North side (Counter Weight Side at B1 and B2 locations) and South side (Cross Beam side at B3 and B4 locations) at 100mm from the weld connecting Bottom Panel to Side Panel using 5000mm string line to verify overall flatness. The straight edges of 600mm and 630 mm of length were also used to measure the localized flatness.

The skin flatness was measured on North side (Counter Weight side at T1 location) and South side (Cross Beam side at T2 location) at 100mm from the weld connecting Deck Panel to Edge Panel using 5000mm string line to verify overall flatness. The straight edges of 600mm and 630 mm length were also used to measure the localized flatness.

The measurements were recorded in the Dimension Control Plan (DCP) on a separate form and submitted to the Lead Inspector and Engineer for review and disposition.

OBG Trial Assembly: Segment 12AE

This QA Inspector performed Dimension Control Inspection for the Segment 12AE.

The Floor Beam (FB) flatness were verified and measured from East and West side of the FB at Panel Points (PP) 109. The QA Inspector measured the flatness using 1500mm Straight Edge at the following locations.

Cross Beam side: At locations A, B, C, D, E, F, G, H and I.
Bike Path side: At locations A', B', C', D', E', F', G', H' and I'.

The measurements were recorded in the Dimension Control Plan (DCP) on a separate form and submitted to the Lead Inspector and Engineer for review and disposition.

Bay # 14: Segment 13BW

This QA Inspector observed the in-process welding by Flux Cored Arc Welding (FCAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as Seg3014N-235. The welder identification was 045227 and 067888 and observed welding in the 2G (Horizontal) position using approved Welding Procedure Specification WPS-B-T-2232-ESAB. The piece mark was identified as the weld connecting the Deck Panel Diaphragm to Floor Beam at PP 120.5.

Bay # 14: Segment 14 East

This QA Inspector observed the in-process welding by Flux Cored Arc Welding (FCAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as Seg3019BB-091. The welder identification was 067079 and observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-B-T-2233-ESAB. The piece mark was identified as the weld connecting the Vertical Shear Plate sub assembly identified as SA3361A to Anchorage Plate AP3031A.

Bay # 14: Segment 14 West

This QA Inspector observed the in-process welding by Flux Cored Arc Welding (FCAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as Seg3020AB-054. The welder identification was 067949 and observed welding in the 2G (Horizontal) position using approved Welding Procedure Specification WPS-B-T-2232-ESAB. The piece mark was identified as the weld connecting the Floor Beam identified as FB3340 to Longitudinal Diaphragm LD3050A at PP 128.

Bay # 14: Segment 14 West

This QA Inspector observed the repair welding by Flux Cored Arc Welding (FCAW) process on a Complete Joint

Penetration (CJP) groove weld. The Weld joint was designated as Seg3020E-044. The welder identification was 067949 and observed welding in the 2G (Horizontal) position using approved Welding Procedure Specification WPS-345-SMAW-3G(3F)-FCM-Repair-1. ZPMC performed repair welding in accordance with Critical Welding Report B-CWR-2735. The piece mark was identified as the weld connecting the Floor Beam identified as FB3343 to Longitudinal Diaphragm LD3048A at PP 128.3.

Bay # 14: Segment 14 West

This QA Inspector observed the in-process welding by Flux Cored Arc Welding (FCAW) process on a Fillet weld. The Weld joint was designated as DP3174-001-380. The welder identification was 048696 and observed welding in the 2F (Horizontal) position using approved Welding Procedure Specification WPS-B-T-2132-ESAB. The piece mark was identified as the weld connecting the Deck Panel to the Diaphragm.

Please reference the pictures attached for more comprehensive details.

Bay # 14: Segment 14 West

This QA Inspector observed the in-process welding by Flux Cored Arc Welding (FCAW) process on a Fillet weld. The Weld joint was designated as DP3173-001-413. The welder identification was 048433 and observed welding in the 2F (Horizontal) position using approved Welding Procedure Specification WPS-B-T-2132-ESAB. The piece mark was identified as the weld connecting the Deck Panel to the Diaphragm.

Please reference the pictures attached for more comprehensive details.

Bay # 14: Segment 14 East

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as DP3164-001-020. The welder identification was 066326 and observed welding in the 2G (Horizontal) position using approved Welding Procedure Specification WPS-345-SMAW-2G(2F)-FCM-Repair-1. ZPMC performed repair welding in accordance with Critical Welding Report B-CWR-2022. The piece mark was identified as the weld connecting the Deck Panel to the Diaphragm.

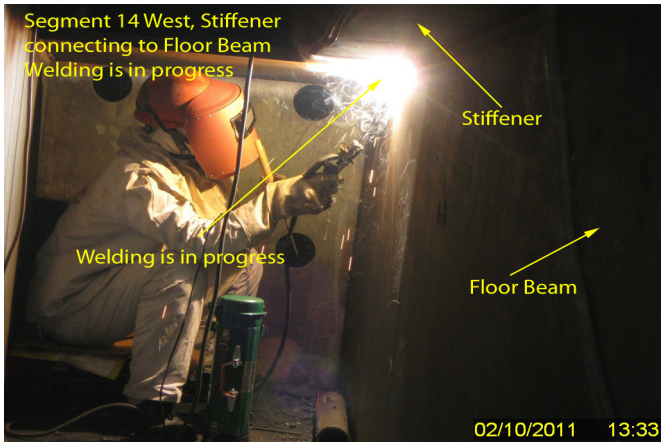
Please reference the pictures attached for more comprehensive details.

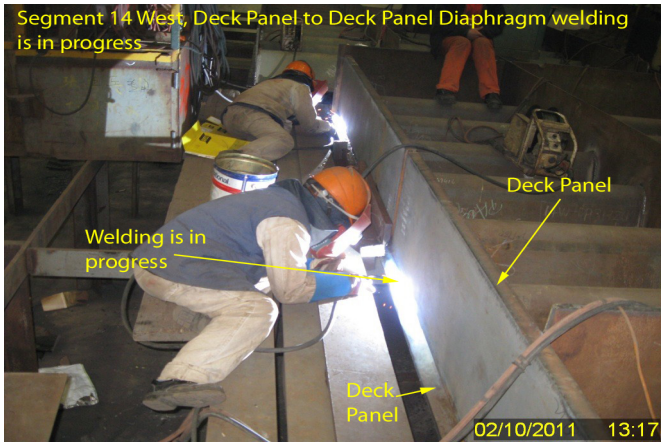
Bay # 14: Segment 14 West

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as Seg3020BC-012. The welder identification was 069683 and observed welding in the 4G (Overhead) position using approved Welding Procedure Specification WPS-B-P-2114-FCM-1. The piece mark was identified as the weld connecting the Floor Beam to the Stiffener.

Please reference the pictures attached for more comprehensive details.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.





Summary of Conversations:

No relevant conversations were reported on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Math,Manjunath	Quality Assurance Inspector
Reviewed By:	Dsouza,Christopher	QA Reviewer